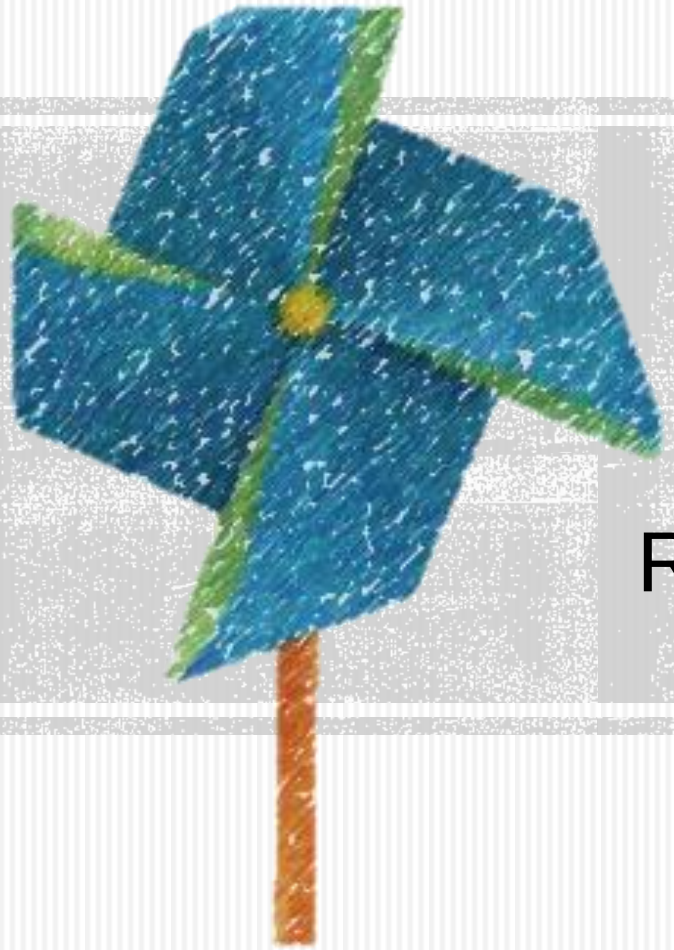
Accreditation

- The content of this webinar presentation has been approved for RN and RT CE credit. Not all topics qualify for AE-C re-certification. See www.naecb.org for more details.

- Measures have been taken by the Utah Department of Health, Bureau of Health Promotion, to ensure there is no conflict of interest in this activity.



Asthma

Reversible Airway Disease

Asthma Disease Process

- A serious/potentially fatal disease process
  - Inflammation and bronchospasm
  - *Reversible* airway disease
- Broken down into degrees
  - Indicates severity and type
- Level or degree determines treatment and medications
  - Intermittent; mild, moderate, and severe persistent asthma
- Return to green plan
  - ACTION PLAN
- Can be early childhood or adult onset; lifetime or develop later

What Can You Expect To Learn today?

- Better understand the disease process
- Better understand the medications used to treat Asthma
  - What type and when to use them
- Degrees (stages) of Asthma – how is it measured?
- Symptoms of Asthma
- How to help the patients you come face to face with
  - The importance of an Asthma Action Plan
  - The best inhaler is one the patient understand and knows how to properly use!

What Does Asthma Look Like?

- According to the Centers for Disease Control and Prevention, 1 in 13 people have asthma.
- About 25 million Americans have asthma.
  - This is 7.6 percent of adults and 8.4 percent of children.
- Asthma has been increasing since the early 1980s in all age, sex and racial groups.
- Asthma is the leading chronic disease in children. It is also the top reason for missed school days.
- Asthma is more common in adult women than adult men.

What Does Asthma Look Like?

- According to the Asthma and Allergy Foundation of America
  - Asthma accounts for 14.2 million physician office visits, 439,000 discharges from hospital inpatient care, and 1.8 million emergency department visits each year.
  - The average length of asthma hospital stays is 3.6 days.
  - Asthma is the third-ranking cause of hospitalization among children younger than 15.
  - African-Americans are three times more likely to be hospitalized from asthma.
- Each day, ten Americans die from asthma, and in 2015, 3,615 people died from asthma. Many of these deaths are avoidable with proper treatment and care.
- Adults are four times more likely to die from asthma than children.
- Women are more likely to die from asthma than men and boys are more likely than girls.
- African-Americans are three times more likely to die from asthma.

What Does Asthma Look Like?

- Asthma is more common in children than adults and more common in boys than girls.
- Currently, there are 6.2 million people with asthma under the age of 18.
- African-Americans in the US die from asthma at a higher rate than people of other races or ethnicities.
- More than 11.5 million people with asthma, including nearly 3 million children, report having had one or more asthma attacks in 2015.
- In 2015, 1 in 12 children had asthma.
- In 2013, about 13.8 million missed school days were reported due to asthma.
- The annual economic cost of asthma is more than $56 billion – including medical costs and lost of work and school days.
- Among children ages 5 to 17, asthma is one of the top causes of missed school days. In 2013, it accounted for more than 13.8 million missed school days.

What Are We Really Talking About?

Managing a chronic state of disease

- Spoon Theory
  - Energy expenditure
  - My own chronic illness
    - What have I learned?
    - Rest
    - Listen to my body

What Are We Really Talking About?

- Sacrifice the small things
  - Help cleaning my house
  - Help managing parts of my business
  - Help Christmas shopping!
- Managing day to day life for what really matters
  - That is part of what we are ultimately going to learn about today
    - How can you help those you come in contact with?

What Do Our Patients Feel?

- Patient will experience:
  - Shortness of breath
  - Wheezing
  - Cough
  - Decreased activity level
  - Increased mucus production
  - Fatigue
  - Interruption of sleep

Intermittent Asthma – Degree 1

- Occasional symptoms
  - Seasonal
  - <twice per week
  - Night time awakenings < 2 per month
  - Exacerbations risk = 1 per year
  - No need for regular controller med
  - Activities not limited due to asthma
  - FEV1 > 80% of predicted
  - Meds: short acting bronchodilator
    - Used < 2 days per week

Mild Persistent – Degree 2

- Symptoms somewhat regular
  - Not daily and < 4 times per week
- Activities limited in a minor way
- FEV1 is 80% of predicted
- Meds include short acting bronchodilator (rescue breather)
  - 3 days per week
- Low dose corticosteroid
- Night time awakenings = 3 nights per month
- Exacerbation risk: 2 times per year

Moderate Persistent Asthma (Degrees 3 & 4)

- Symptoms are regular
  - Daily
- FEV1 is 60-80% of predicted
- Use of “rescue breather” daily
- Medium/low dose corticosteroid with long acting bronchodilator
- May require additional meds of Theophylline or zileuton
- Night time awakenings = 2 nights per week or more, but not every night
- Risk of exacerbation is 3 times per year

Severe Persistent (Degrees 5 & 6)

- Symptoms are daily, all day long
- Extreme activity limitation
- FEV1 < 60% of predicted and FEV1/FVC ratio is reduced by >5% of norm
- Rescue breather used several times per day
- High dose inhaled corticosteroid and long acting bronchodilator
  - Possible use of oral steroids to control inflammation
  - Possible use of omalizumab if triggered by allergies
- Night time awakenings regular
- Risk of exacerbation is > 3 times per year

Triggers

- What cause symptoms to increase
  - Usually within 30 mins of exposure
  - Then again about 8 hours post exposure
- Either allergens and irritants
- Responses are more likely when asthma is uncontrolled
- Some drugs can induce or trigger asthma
  - beta-blockers
  - Aspirin, other NSAIDs in some patients

Allergens

- Biological products
  - Elicit a chemical response in the body
  - Potential of various responses
- Major contributors to asthma
  - Mold
    - Pink
    - White
    - Black
  - Cockroaches
  - Rodents
  - Dust mites
  - Seasonal allergens

Irritants

- Something in the air
  - Pollution
  - Cigarette smoke
  - Other smoke
  - Wood particles
  - Dirt
  - Paint fumes
  - Etc

Write it down!

- Encourage your patients to consult with their physician
- Write triggers down
- Keep a journal
  - Timelines
  - Exposure
  - Severity of response

Do You Have an Action Plan?

- Absolutely vital for safe management of disease!

Asthma Action Plan

- Please refer to your institution's Asthma Action Plan

- Please encourage the use of aero-chamber (spacer) with MDI
  - Teaching the use of a spacer to kids takes special time and attention
  - The best inhaler is one the patient understand and knows how to properly use!

Wrap It Up!

Learning objectives:

- Better understand the disease process
  - Discussed what Asthma looks like
  - Reviewed the disease process
  - How it effects the patient
- Better understand the medications used to treat Asthma
  - What type and when to use them
    - Discussed the various stages of Asthma and when to use what medications

Wrap It Up!

Learning objectives:

- Symptoms of Asthma
  - Discussed what the patients' are feeling / onset of Asthma
- How to help the patients you come face to face with
  - Family and community support, medical support, importance of proper medication, relaxation, nutrition, and physical activity, listening to your body, budgeting your energy, and prioritizing your health.

Community Resources

Utah Asthma Program

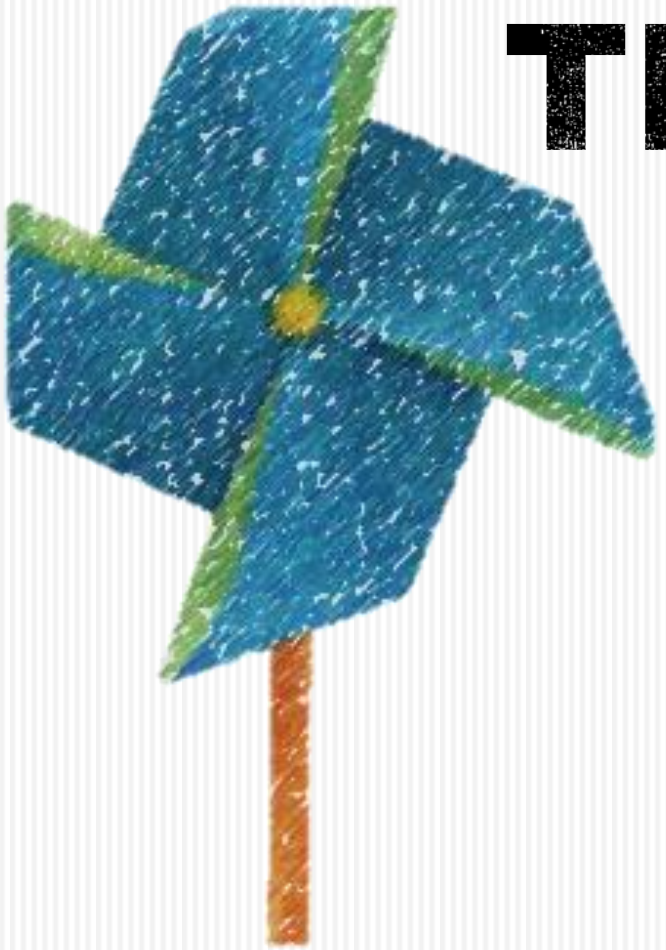
http://health.utah.gov/asthma/airquality/recess.html

Asthma Basics, Air Quality, Recess Guidance, Seasonal Pollution, wood smoke and fires, information for healthcare providers school nurses, inhaler technique video, and more.

Partners include Utah Asthma Task Force

Utah Asthma Coalition

Utah Pediatric Partnership to Improve Healthcare quality, Utah Children's Care Coordination network, American Lung Association, and others.



Thank you!

Questions?